

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

Claims 1 – 15 (cancelled)

Claim 16 (original): A method for the combustion of a fuel using an oxygenated gas, in which a jet of fuel and at least two jets of oxygen-rich oxygenated gas are injected, the first jet of oxygen-rich oxygenated gas, called the primary jet, being injected so as to be in contact with the jet of fuel and so as to generate incomplete first combustion, the gases output by this first combustion still including at least one portion of the fuel, and the second jet of oxygen-rich oxygenated gas being injected at a distance ℓ_1 from the jet of fuel so as to combust with a first portion of the fuel present in the gases output by the first combustion, wherein an oxygen-lean oxygenated gas is injected at a distance ℓ_2 from the jet of fuel so as to combust with a second portion of the fuel present in the gases output by the first combustion, and in that ℓ_2 is greater than ℓ_1 .

Claim 17 (original): The method of claim 16, wherein the oxygen-rich oxygenated gas has an oxygen concentration of greater than 30% by volume.

Claim 18 (original): The method of claim 16, wherein the oxygen-lean oxygenated gas has an oxygen concentration of at most 30% by volume.

Claim 19 (original): The method of claim 16, wherein the distance ℓ_1 is between 5 and 20 cm.

Claim 20 (currently amended): The method of claim 16 ~~19~~, wherein the distance ℓ_2 is greater than 30 cm.

Claim 21 (original): The method of claim 16, wherein the quantity of oxygen injected by the jets of oxygen-rich oxygenated gas represents 10 to 50% of the total quantity of oxygen injected.

Claim 22 (original): The method of claim 16, wherein the area of the cross section of the injection orifice for the oxygen-lean oxygenated gas is between 4 and 100 times the area of the injection cross section for the oxygen-rich oxygenated gas injected at the distance ℓ_2 .

Claim 23 (original): The method of claim 16, wherein the oxygen-lean oxygenated gas is preheated before being injected.

Claim 24 (original): The method of claim 16, wherein the oxygen-rich oxygenated gas derives at least partly from a liquid oxygen storage unit.

Claim 25 (currently amended): A separate-injection burner assembly consisting of a third block surrounded, in order, on each side by at least two blocks and comprising a combustible gas injection orifice and at least four oxygenated gas injection orifices a first block and a second block, in which:

- a) the first block has a fuel injection orifice and at least two oxygenated-gas injection orifices, the first oxygenated-gas injection orifice being placed so as to be in contact with the fuel injection orifice, the second oxygenated-gas injection orifice being placed at a distance ℓ_1 from the fuel injection orifice; and
- b) the second block has at least third and fourth oxygenated-gas injection orifices, each placed at a distance ℓ_2 from the fuel injection orifice of

the first block, ℓ_2 being greater than ℓ_1 and the fourth oxygenated-gas injection orifice having an area of between 4 and 100 times the area of the third orifice; and

- c) the third block has a fifth oxygenated-gas injection orifice placed at a distance ℓ_2 from the fuel injection orifice and having an area of between 4 and 100 times the area of the third injection orifice.

Claim 26 (original): The burner assembly of claim 25, wherein the first oxygenated-gas injection orifice is placed centrally in the fuel injection orifice.

Claim 27 (canceled)

Claim 28 (canceled)

Claim 29 (original): The use of the method of claim 16 for heating a glass charge or for a reheat furnace.

Claim 30 (original): The use of the method of claim 16 when the continuous production of oxygen is interrupted.